



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,966	02/18/2004	Balaji S. Thenthirupera	2402	4454
28005	7590	02/21/2008		
SPRINT 6391 SPRINT PARKWAY KSOPHT0101-Z2100 OVERLAND PARK, KS 66251-2100			EXAMINER ZENATI, AMAL S	
			ART UNIT 4183	PAPER NUMBER
			MAIL DATE 02/21/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/781,966	Applicant(s) THENTHIRUPERAI, BALAJI S.	
	Examiner AMAL ZENATI	Art Unit 4183	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02/18/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1 - 9, 13, 14, 15, 16, 18 – 21, 24 – 26, 28 - 35** are rejected under 35 U.S.C 102

(b) as being anticipated by **Jost et al (Pub. No.: US 2002/0055916 A1; hereinafter Jost)**

Consider **claims 1, 14, 24, and 31, Jost** clearly shows and discloses a method and a system for routing an incoming call from a caller, wherein the system comprises a telephony interface, a prompt generation, a voice response unit; a data compilation unit and a call routing unit (fig. 4), an article of manufacture comprising: a storage medium having a plurality of machine-readable instructions stored thereon, wherein the instructions when executed (page 6, paragraph 0092, line 4), provide for: receiving the incoming call; generating one or more prompts to solicit respective responses from the caller (page 1, paragraph 0004); receiving, from the caller, the respective responses; assigning one or more respective weights to the call, the one or more respective weights corresponding respectively to each of the one or more responses (page 2, paragraph 0017); processing the weights to determine one or more overall weights (average weight) of the call; and routing the call to an appropriate location based, at least in part, on the one or more overall weights of the call (page 2, paragraph 0021).

Consider **claims 2 and 25, Jost** clearly shows the method and the system, wherein at least one of the data compilation unit and the call routing unit determines at least one of a priority of the call and a classification of the call and wherein the call routing unit routes the call based on at least one of the priority of the call and the classification of the call (page 1-2, paragraph 0015).

Art Unit: 4183

Consider **claims 3, 15, and 26, Jost** clearly shows the method and the system, wherein the prompt generation unit generates prompts using text-to-speech conversion (page 4, paragraph 0069, lines 9-10).

Consider **claims 4 and 16, Jost** clearly shows the method and the system, wherein the prompt generation unit generates prompts using digital audio files (page 2, paragraph 0018, line 5).

Consider **claim 5, Jost** clearly shows the system, further comprising a browser, wherein the prompts are included in one or more browser pages that are operatively coupled in the system (page 6, paragraph 0096, lines 1-6).

Consider **claim 6, Jost** clearly shows the system, wherein the browser comprises a voice browser and the browser pages are implemented with VoiceXML (page 11, paragraph 0179, lines 7-9).

Consider **claim 7, Jost** clearly shows the system, wherein the respective weights are stored in one or more attribute tags that are communicated between at least two of the one or more browser pages (page 6, paragraph 0097, lines 3-6; and fig. 4).

Consider **claim 8, Jost** clearly shows the system, wherein the responses are stored in one or more attribute tags that are communicated between at least two of the one or more browser pages (page 6, paragraph 0092; and fig. 4).

Consider **claims 9 and 29, Jost** clearly shows the method and the system, wherein the browser pages are generated by an application providing programming feature to: define the one or more prompts; define relationships between the one or more prompts; define the respective weights associated with specific responses from the caller (page 1, paragraph 0014); and define one or more trigger points at which the data compilation unit will process the respective weights prior to determine the one or more overall weights used for routing the call (page 2, paragraph 0017).

Art Unit: 4183

Consider **claim 13, Jost** clearly shows the system, wherein the respective weights and the one or more overall weights include a plurality of weight types that may be used by the call routing unit when routing the call (page 2, paragraph 0021, lines 5- 11).

Consider **claims 18, and 32, Jost** clearly shows the method and the system, wherein assigning the one or more respective weights comprises assigning the respective weights in a plurality of categories associated with the call (page 2, paragraph 0028, lines 9-15).

Consider **claims 19 and 33, Jost** clearly shows the method and the system, wherein processing the weights comprises performing an arithmetic operation one the one or more respective weights to obtain the one or more overall weights (page 3, paragraph 0032).

Consider **claims 20, 21, 34, and 35, Jost** clearly shows the method and the system, wherein performing the arithmetic operation comprises calculation one or more sums (product) form the one or more respective weights (page 3, paragraph 0041, lines 8-10).

Consider **claims 28, Jost** the system, wherein the machine further comprises a browser and the prompts are included in a plurality of interrelated browser pages, and wherein the browser pages are implemented as part of a customer care center call routing application (page 6, paragraph 0092).

Consider **claims 30, Jost** clearly shows the system, wherein the the respective weights and the at least one overall weight include a plurality of weight types (page 2, paragraph 0021, lines 5-10).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 4183

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Consider **Claims 10, 17, and 27** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Jost (Pub. No.: US 2002/0055916 A1)** in view of **Thenthiruperai (US Patent No. 7,251,604)**

Jost discloses the claimed invention above and furthermore discloses receiving the responses comprises receiving at least one of spoken responses but lack teaching the details of receiving the responses comprises receiving dual-tone-multi-frequency responses (DTMF).

In the same field of endeavor, **Thenthiruperai** clearly discloses the system, wherein the response receiving unit comprises at least one of a speech interpreter for recognizing spoken responses from the caller and a dual-tone multi frequency (DTMF) (col. 2, lines 30-37).

Thenthiruperai discloses the above steps for the purpose of detect DTMF tones respond by a user (col. 1, lines 55-59).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use DTMF as taught by Thenthiruperai in Jost, in order to detect DTMF tones respond by a user.

5. Consider **Claims 11, 22, and 36** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Jost (Pub. No. US 2002/0055916 A1)** in view of **Lipinski (Pub. No. US 2003/0084144 A1)**

Jost discloses the claimed invention above but lack teaching of using the heuristic method.

Art Unit: 4183

In the same field of endeavor, **Lipinski** clearly discloses the system, wherein the call routing unit employs a heuristic routing method (page 3, paragraph 0020, line10).

Lipinski discloses the above for the purpose of providing immediate access for routing a call to a particular destination or channel (page 3, paragraph 0021, lines 10 - 16).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use both methods as taught by Jost in Lipinski, in order to provide immediate access for routing a call to a particular channel.

6. Consider **Claims 12, 23, and 37** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Jost (Pub. No. US 2002/0055916 A1)** in view of **Lipinski (Pub. No. US 2003/0084144 A1)** and further in view of **Alspector (US Patent # 4,874,963)**

Jost and Lipinski disclose the claimed invention above but lack teaching of using a traveling salesman problem solution method for the call routing.

In the same field of endeavor, **Alspector** clearly discloses the system, wherein the heuristic routing method comprises one of a simulated annealing method and a traveling salesman problem solution (col. 10, lines 27-31).

Alspector discloses the above for the purpose of providing immediate access for routing telephone calls through a multiplicity of trunks (col. 10, lines 27-31).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use both methods as taught by Jost in Lipinski and Alspector, in order to provide immediate access for routing a call to a particular destination.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amal Zenati whose telephone number is (571)270-1947. The examiner can normally be reached on Monday-Friday from 8:00am-5:00pm.

Art Unit: 4183

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on 571- 272- 1184. The fax phone number for the organization where this application or proceeding is assigned is 571- 571-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner Amal Zenati
/Amal Zenati/

January 30, 2008

/Len Tran/

Supervisory Patent Examiner, Art Unit 4183